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(FILE 'REGISTRY' ENTERED AT 17:31:27 ON 22 JUN 2007)

L1 STR
 L3 STR
 L4 STR
 L14 117 SEA SSS FUL L1 AND (L3 OR L4)
 L23 STR
 L25 STR
 L27 STR
 L31 STR
 L33 STR
 L35 STR
 L38 1216 SEA SSS FUL L23 OR L25 OR L27
 L40 0 SEA SSS FUL L31 OR L33 OR L35
 L41 STR
 L42 3 SEA SUB=L14 SSS FUL L41
 L43 STR
 L45 5 SEA SUB=L14 SSS FUL L43
 L51 STR
 L53 943 SEA SUB=L38 SSS FUL L51
 L55 STR
 L56 250 SEA SUB=L53 SSS FUL L55
 L69 STR
 L70 198 SEA SUB=L56 SSS FUL L69
 L71 52 SEA ABB=ON PLU=ON L56 NOT L70
 L85 STR
 L86 STR
 L87 STR
 L89 11 SEA SUB=L38 SSS FUL L85 OR L86 OR L87
 L90 68 SEA ABB=ON PLU=ON L40 OR L42 OR L45 OR L71 OR L89

FILE 'HCAPLUS' ENTERED AT 19:23:13 ON 22 JUN 2007

L91 19 SEA ABB=ON PLU=ON L90

FILE HCAPLUS

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FILE COVERS 1907 - 22 Jun 2007 VOL 147 ISS 1
 FILE LAST UPDATED: 21 Jun 2007 (20070621/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 JUN 2007 HIGHEST RN 938223-21-3
DICTIONARY FILE UPDATES: 21 JUN 2007 HIGHEST RN 938223-21-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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=>
=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 19:26:27 ON 22 JUN 2007
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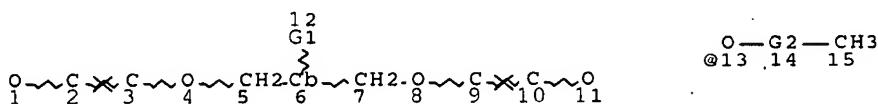
FILE COVERS 1907 - 22 Jun 2007 VOL 147 ISS 1
FILE LAST UPDATED: 21 Jun 2007 (20070621/ED)

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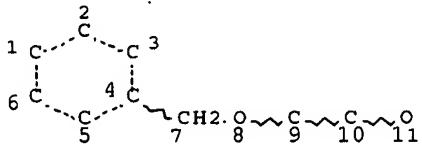
=> d stat que 191
L1          STR
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VAR G1=OH/13
 REP G2=(0-9) C
 NODE ATTRIBUTES:
 NSPEC IS RC AT 2
 NSPEC IS RC AT 3
 NSPEC IS RC AT 9
 NSPEC IS RC AT 10
 DEFAULT MLEVEL IS ATOM
 GGCAT IS MCY AT 6
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 15

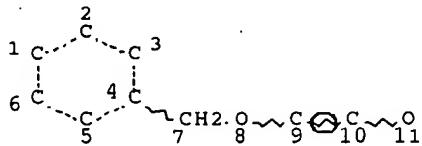
STEREO ATTRIBUTES: NONE
 L3 STR



NODE ATTRIBUTES:
 NSPEC IS C AT 9
 NSPEC IS C AT 10
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 1
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L4 STR

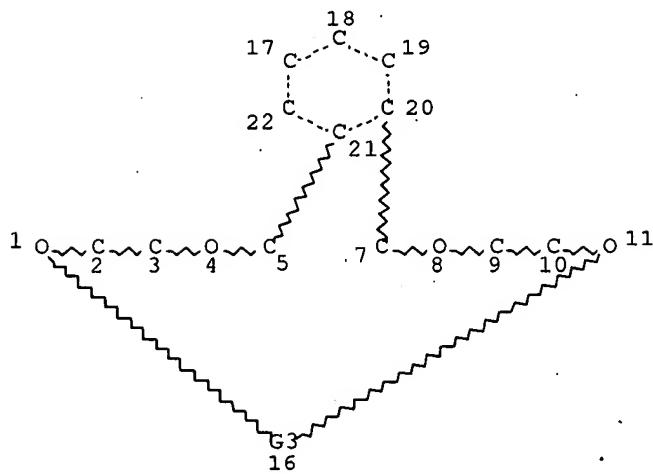


NODE ATTRIBUTES:
 NSPEC IS C AT 9
 NSPEC IS C AT 10
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 1
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L14 117 SEA FILE=REGISTRY SSS FUL L1 AND (L3 OR L4)
 L23 STR



REP G3=(2-20).A

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

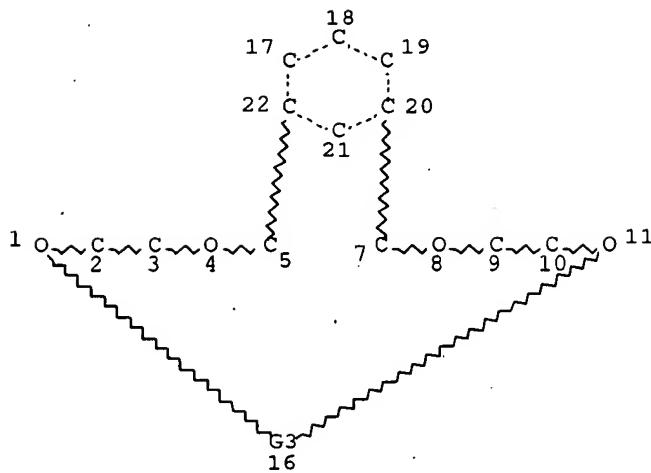
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L25 STR



REP G3=(2-20) A

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

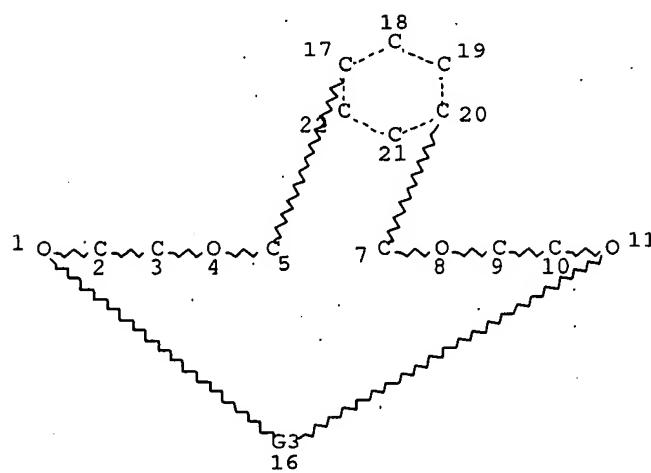
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L27 STR



REP G3=(2-20) A

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

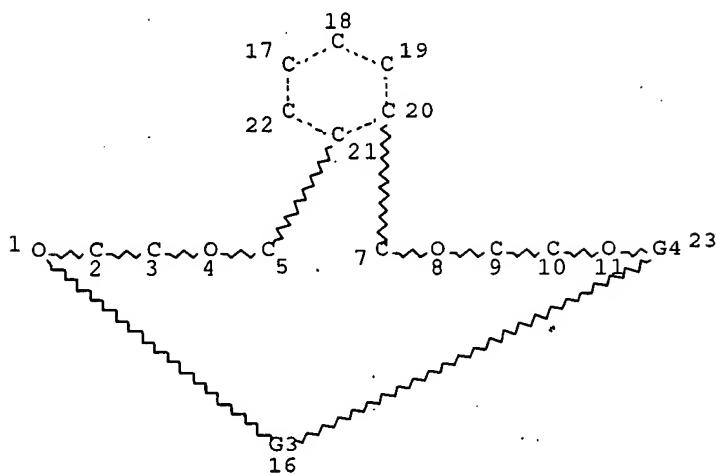
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 17.

STEREO ATTRIBUTES: NONE

L31 STR



REP G3=(20-20) A

REP G4=(1-11) A

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

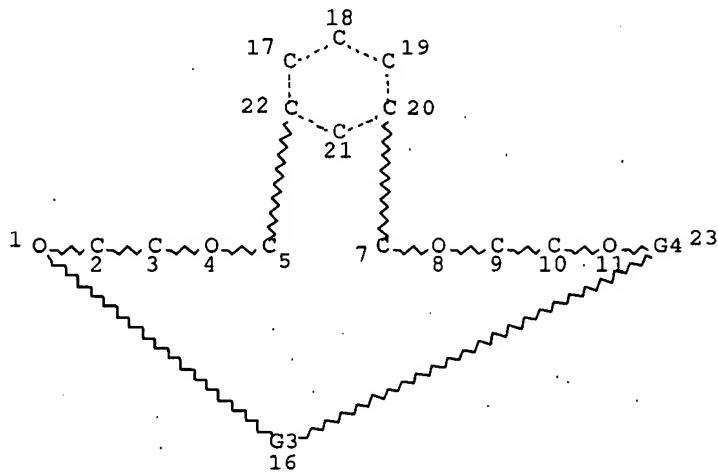
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L33 STR



REP G3=(20-20) A

REP G4=(1-11) A

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

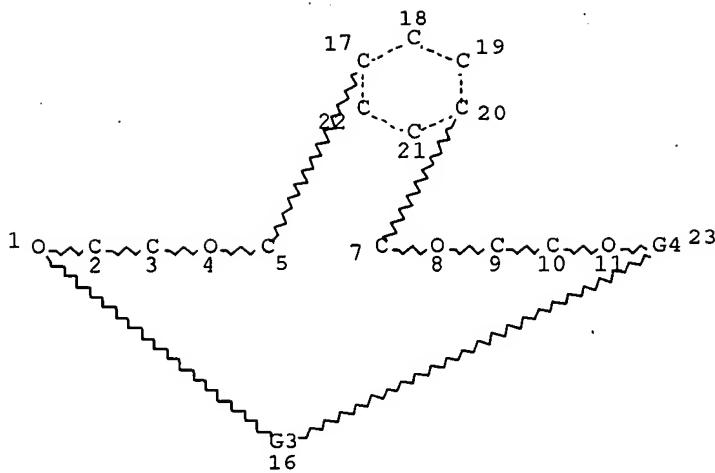
GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L35 STR



REP G3=(20-20) A

REP G4=(1-11) A

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

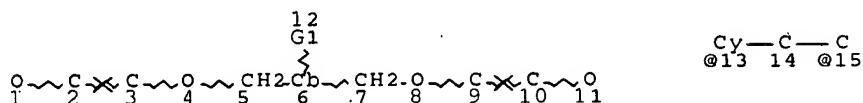
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L38 1216 SEA FILE=REGISTRY SSS FUL L23 OR L25 OR L27

L40 0 SEA FILE=REGISTRY SSS FUL L31 OR L33 OR L35

L41 STR



VAR G1=CY/13/15

NODE ATTRIBUTES:

NSPEC	IS RC	AT	2
NSPEC	IS RC	AT	3
NSPEC	IS RC	AT	9
NSPEC	IS RC	AT	10

DEFAULT MLEVEL IS ATOM
GGCAT IS MCY AT 6

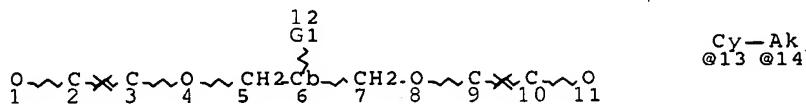
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L42 3 SEA FILE=REGISTRY SUB=L14 SSS FUL L41
L43 STR



VAR G1=CY/13/14

NODE ATTRIBUTES:

NSPEC IS RC AT 2
NSPEC IS RC AT 3
NSPEC IS RC AT 9
NSPEC IS RC AT 10

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY AT 6

DEFAULT ECLEVEL IS LIMITED

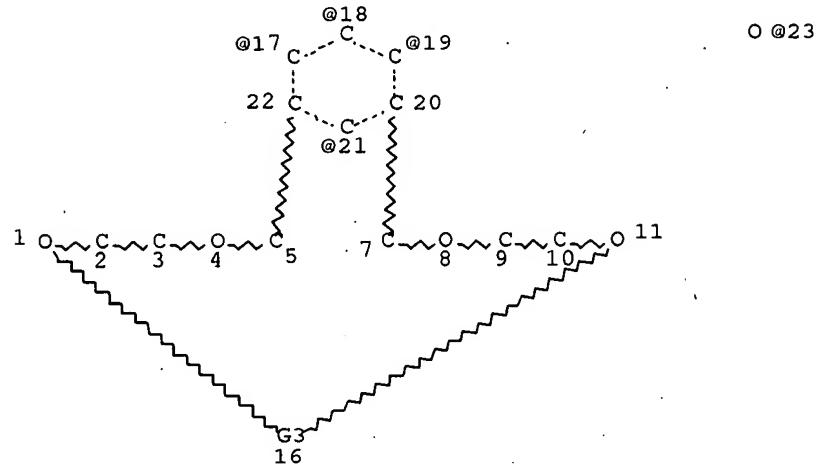
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L45 5 SEA FILE=REGISTRY SUB=L14 SSS FUL L43
L51 STR



REP G3=(2-20) A

VPA 23-17/18/19/21 U

NODE ATTRIBUTES:

NSPEC IS R AT 1
NSPEC IS R AT 2
NSPEC IS R AT 3

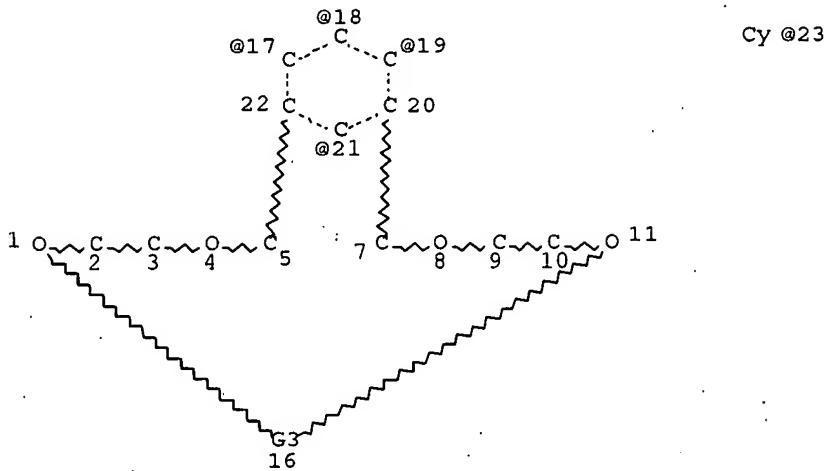
NSPEC IS R AT 4
 NSPEC IS R AT 5
 NSPEC IS R AT 7
 NSPEC IS R AT 8
 NSPEC IS R AT 9
 NSPEC IS R AT 10
 NSPEC IS R AT 11
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L53 943 SEA FILE=REGISTRY SUB=L38 SSS FUL L51
 L55 STR



REP G3=(2-20) A

VPA 23-17/18/19/21 U

NODE ATTRIBUTES:

NSPEC IS R AT 1
 NSPEC IS R AT 2
 NSPEC IS R AT 3
 NSPEC IS R AT 4
 NSPEC IS R AT 5
 NSPEC IS R AT 7
 NSPEC IS R AT 8
 NSPEC IS R AT 9
 NSPEC IS R AT 10
 NSPEC IS R AT 11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

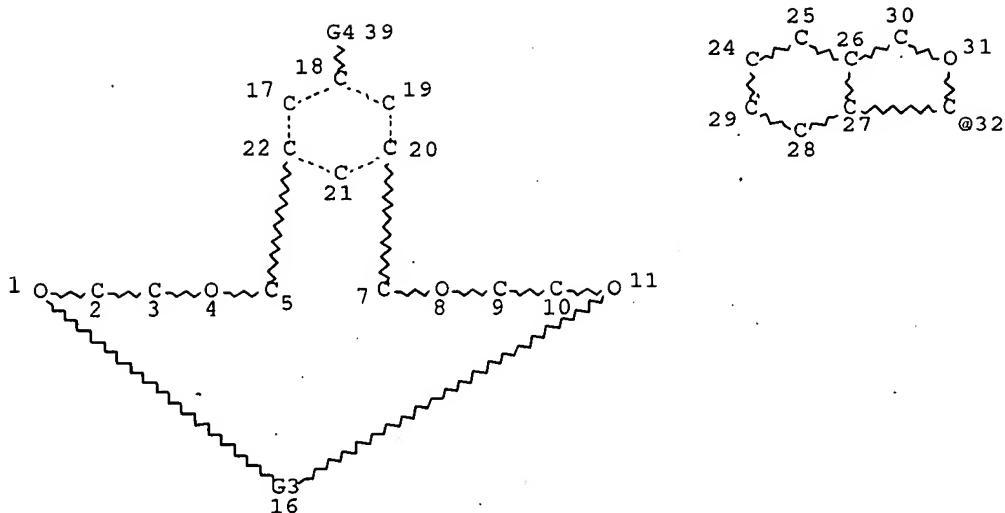
RSPEC I
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L56 250 SEA FILE=REGISTRY SUB=L53 SSS FUL L55

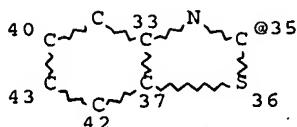
L69

STR



41 34

Page 1-A



Page 2-A

REP G3=(2-20) A

VAR G4=32/35

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

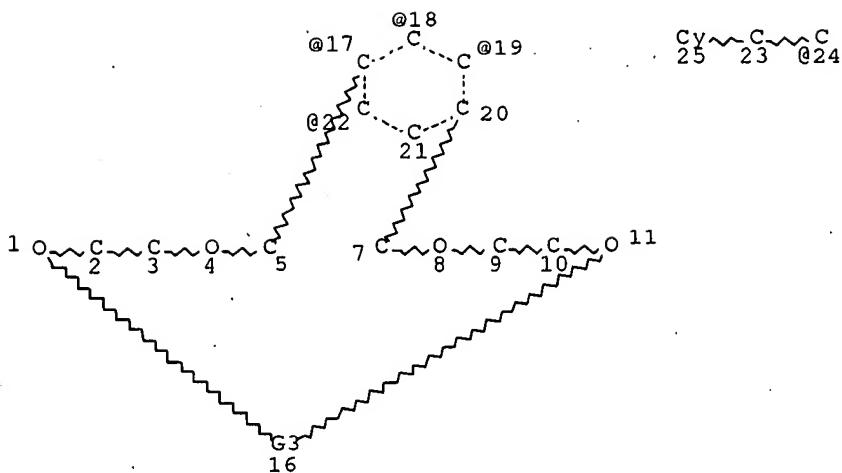
NUMBER OF NODES IS 36

STEREO ATTRIBUTES: NONE

L70 198 SEA FILE=REGISTRY SUB=L56 SSS FUL L69

L71 52 SEA FILE=REGISTRY ABB=ON PLU=ON L56 NOT L70

L85 STR



REP G3=(2-20) A
 VPA 24-17/18/19/22 U

NODE ATTRIBUTES:

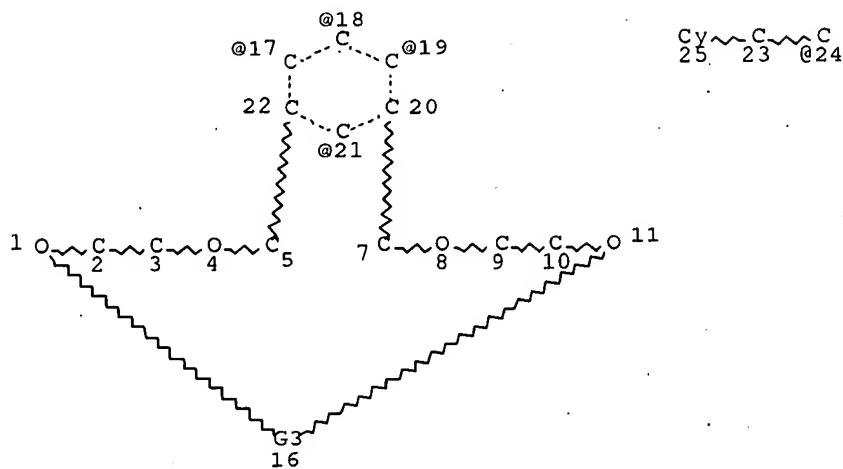
NSPEC IS R AT 1
 NSPEC IS R AT 2
 NSPEC IS R AT 3
 NSPEC IS R AT 4
 NSPEC IS R AT 5
 NSPEC IS R AT 7
 NSPEC IS R AT 8
 NSPEC IS R AT 9
 NSPEC IS R AT 10
 NSPEC IS R AT 11

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I
 NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
 L86 STR



REP G3=(2-20) A
VPA 24-17/18/19/21 U

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11

DEFAULT MLEVEL IS ATOM
DEFAULT ECL-EVEL IS LIMITED

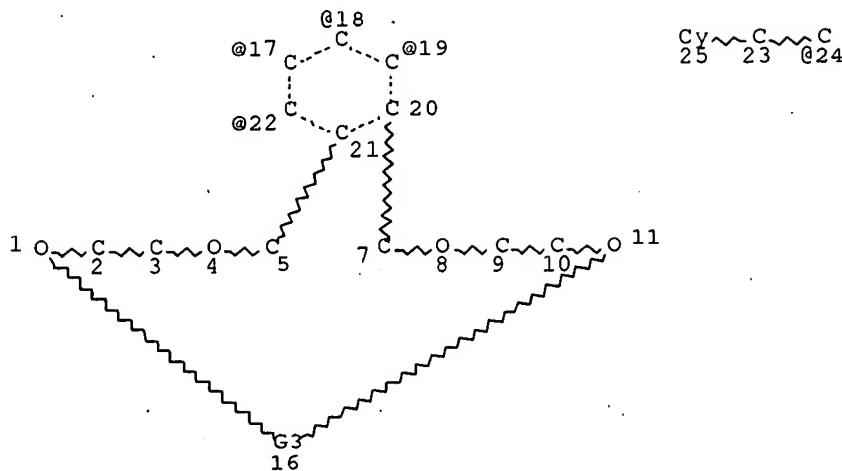
GRAPH ATTRIBUTES:

RSPEC T

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L87 STR



REP G3=(2-20) A
VPA 24-17/18/19/22 U

NODE ATTRIBUTES:

NSPEC	IS R	AT	1
NSPEC	IS R	AT	2
NSPEC	IS R	AT	3
NSPEC	IS R	AT	4
NSPEC	IS R	AT	5
NSPEC	IS R	AT	7
NSPEC	IS R	AT	8
NSPEC	IS R	AT	9
NSPEC	IS R	AT	10
NSPEC	IS R	AT	11
DEFAULT MLEVEL IS ATOM			

DEFAULT RELEVEL IS HIGH
DEFAULT ECLEVEL IS LIMITED